CLAIMS

What is claimed is:

1. An ablation device, comprising:

a shaft comprising proximal and distal ends, at least a portion of the shaft being bendable to form a desired configuration;

a clamp assembly on the distal end of the shaft, the clamp assembly comprising first and second opposing jaws, at least one of the first and second jaws being moveable relative to the other to open and close the clamp assembly;

first and second electrodes on the first and second jaws, respectively; and

a handle on the proximal end of the shaft.

2. The ablation device of claim 1, wherein at least a portion of the shaft is capable of being rotated about a longitudinal axis of the shaft.

3. The ablation device of claim 1, wherein the shaft comprises a first segment and a second segment rotatably secured to the first segment.

4. The ablation device of claim 3, wherein the second segment is rotatably secured to the first segment by a ball-bearing connection.

5. The ablation device of claim 1, wherein the shaft comprises one or more polymer rings.

6. The ablation device of claim 1, wherein the at least a portion of the shaft is made from a malleable material.

7. The ablation device of claim 1, wherein the shaft further comprising a lumen extending between the proximal and distal ends.

8. The ablation device of claim 7, further comprising:

a tensioning device located proximate to the proximal end of the shaft; and

a wire having a proximal end secured to the tensioning device and a distal end secured to the distal end of the shaft, at least a portion of the wire is disposed within the lumen of the shaft;

wherein the tensioning device is operable to create or adjust a tension in the wire.

9. The ablation device of claim 8, wherein the tensioning device comprises a knob.

10. The ablation device of claim 7, further comprising:

an actuating device coupled to the handle; and

a control wire having a proximal end coupled to the actuating device and a distal end secured to the clamp assembly, at least a portion of the control wire is disposed within the lumen of the shaft;

wherein the actuating device is operable to create or adjust a tension in the control wire.

11. The ablation device of claim 10, wherein the actuating device comprises a first portion and a second portion rotatably secured to the first portion.

12. The ablation device of claim 10, further comprising a spring secured between the proximal end of the control wire and the actuating device.

13. The ablation device of claim 1, wherein the clamp assembly is rotatably secured to the distal end of the shaft.

14. The ablation device of claim 1, wherein the first electrode has a first surface, the second electrode has a second surface, and the clamp assembly having a configuration such that when a tissue is compressed between the first and second jaws, the first surface of the first electrode is approximately parallel to the second surface of the second electrode.

15. The ablation device of claim 1, wherein the second jaw remains approximately parallel to the first jaw as the second jaw is moved relative to the first jaw.

16. The ablation device of claim 1, wherein at least a portion of the first jaw is capable of being bent into a desired shape.

17. The ablation device of claim 1, wherein the first and the second electrodes operate in a bipolar arrangement.

18. the ablation device of claim 1, wherein the first and the second electrodes operate in a unipolar arrangement..

19. An ablation device, comprising:

a shaft having a proximal end and a distal end;

a clamp assembly secured to the distal end of the shaft, the clamp assembly having a first jaw and a second jaw, the second jaw moveable relative to the first jaw to open or close the clamp assembly, the second jaw remains approximately parallel to the first jaw as the second jaw is moved relative to the first jaw;

a first electrode secured to the first jaw of the clamp assembly;

a second electrode secured to the second jaw of the clamp assembly; and

a handle connected to the proximal end of the shaft.

20. The ablation device of claim 19, wherein the shaft further having a lumen extending between the proximal end and the distal end.

21. The ablation device of claim 20, further comprising:

an actuating device coupled to the handle; and

a control wire having a proximal end coupled to the actuating device and a distal end secured to the clamp assembly, at least a portion of the control wire is disposed within the lumen of the shaft;

wherein the actuating device is operable to create or adjust a tension in the control wire.

22. The ablation device of claim 21, wherein the actuating device comprises a first portion and a second portion rotatably secured to the first portion.

23. The ablation device of claim 21, further comprising a spring secured between the proximal end of the control wire and the actuating device.

24. The ablation device of claim 19, wherein the clamp assembly is rotatably secured to the distal end of the shaft.

25. The ablation device of claim 19, wherein at least a portion of the shaft is capable of being rotated about a longitudinal axis relative to a remaining portion of the shaft.

26. The ablation device of claim 19, wherein at least a portion of the first jaw is capable of being bent into a desired shape.

27. The ablation device of claim 19, wherein the first and the second electrodes operate in a bipolar arrangement.

28. the ablation device of claim 19, wherein the first and the second electrodes operate in a unipolar arrangement.

29. A method of ablating a tissue, comprising:

providing an ablation device having a shaft and a clamp assembly connected to the shaft, the clamp assembly carrying at least one electrode;

bending the shaft of the ablation device into a desired shape;

inserting at least a portion of the ablation device into a patient;

clamping a tissue inside the patient using the clamp assembly; and

delivering ablation energy to the tissue via the at least one electrode.

30. The method of claim 29, further comprising locking the shaft in the desired shape.

31. The method of claim 30, wherein the locking comprises creating a compression in the shaft.

32. The method of claim 29, wherein the inserting the at least a portion of the ablation device into the patient comprises placing the clamp assembly through a trocar or a cannula.

33. The method of claim 29, wherein the clamp assembly having a first jaw and a second jaw, and the clamping comprises causing the second jaw to move relative to the first jaw, wherein the second jaw remains approximately parallel to the first jaw as the second jaw is moved relative to the first jaw.

34. A method of ablating a tissue, comprising:

providing a clamp assembly, the clamp assembly having a first jaw carrying a first electrode, and a second jaw carrying a second electrode, the first electrode having a first surface, and the second electrode having a second surface;

holding a tissue inside a patient using the clamp assembly such that the first surface of the first electrode is approximately parallel to the second surface of the second electrode when the tissue is secured between the first and second electrodes; and

delivering ablation energy to the first and second electrodes.

35. The method of claim 34, wherein the tissue comprises at least a portion of an atria tissue, and the method further comprising compressing the at least a portion of the atria tissue.

36. The method of claim 35, wherein the compressing is performed such that a first wall of the at least a portion of the atria tissue is in contact with a second wall of the at least a portion of the atria tissue.

37. The method of claim 36, wherein the delivering the ablation energy is continued until a transmural lesion is created at the first wall and at the second wall.

38. The method of claim 34, wherein the clamping comprises moving the second jaw relative to the first jaw, the second jaw remains approximately parallel to the first jaw as the second jaw is moved relative to the first jaw.

39. The method of claim 34, wherein the delivering the ablation energy is continued until a transmural lesion is created in the tissue.